

Work Order ID 106510

\*106510\*

Page 1

Thursday, September 05, 2013 8:03:57 AM

Item ID:	D4008-9	Accept	*N900040100*	Setup	Start *NS1*
Revision ID:				Stop	*NS2*
Item Name:	Spring				
Start Date:	9/5/2013	Start Qty: 20.00	*20*	Cust Item ID:	
Required Date:	9/13/2013	Req'd Qty: 20.00	*20*	Customer:	
Reference:				Run	Start *NR1*
Approvals:	Process Plan: CL	Date: 13/09/05	Tooling: _____	Date: _____	Stop
	QC: _____	Date: _____	SPC (Y/N): _____	Date: _____	*NR2*

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
Draw Nbr	Revision Nbr								
100		0.00							
*100*									
Purchasing	Memo	0.00							
Purchasing	Issue P/O: 21228								
	Purchase Part Number: 206-031-140-001								
	Supplier: BELL HELICOPTER								
	Certificate of conformity is required								
110	Receive & Inspect for Damage & Mat'l Certs	0.00							
*110*									
Packaging	Memo	0.00							
Packaging									

CL 13/09/05 20

PL 13/9/13 (6)

NCR: Yes / No

DQA: \_\_\_\_\_ Date: \_\_\_\_\_

**WORK ORDER NON-CONFORMANCE / UPDATE**

QA Closed: \_\_\_\_\_ Date: \_\_\_\_\_

Work Order: _____			DISPOSITION		AGAINST DEPARTMENT/PROCESS								
			Rework Scrap Use-as-is Work Order Update	Skid-tube Machining Thermoforming Large Fab	Crosstube Small Fab Finishing Composite	Water Jet Prod. Eng. Coor. Rec/Store/Packaging Supplier	Engineering Quality Other						
Part No. _____  NCR No. _____													
Root Cause	Date	Step	Qty	Description of work order update or Non-conformance	Initial Chief Eng	Action Description	Sign & Date	Verification	QC Inspector				
Doc/Data													
Equip/Tooling													
Operator													
Material													
Setup													
Other													
Process													
Supplier													
Training													
Unapproved													
FAULT CATEGORY													
<b>Landing Gear</b> <input type="checkbox"/> Bending <input type="checkbox"/> Centre Not Concentric to O/S <input type="checkbox"/> Cracks <input type="checkbox"/> Crushed/Crimped <input type="checkbox"/> Cuffs <input type="checkbox"/> Heat Treat <input type="checkbox"/> Inspection Strip in Tube <input type="checkbox"/> Ripples in Bend <input type="checkbox"/> Torque Waves in Extrusion <input type="checkbox"/> Turning Sequence <input type="checkbox"/> Wave/Twist in Tube				<b>General</b> <input type="checkbox"/> Bend <input type="checkbox"/> BOM/Route <input type="checkbox"/> Broken/Damaged <input type="checkbox"/> Burrs <input type="checkbox"/> Contamination <input type="checkbox"/> Countersink <input type="checkbox"/> Cut Too Short <input type="checkbox"/> Drill Holes <input type="checkbox"/> Drawing <input type="checkbox"/> Finish <input type="checkbox"/> Folio  <input type="checkbox"/> Grain <input type="checkbox"/> Hardware <input type="checkbox"/> Inspection Incomplete <input type="checkbox"/> Instructions Incomplete/Unclear <input type="checkbox"/> Maintenance <input type="checkbox"/> Mislabeled <input type="checkbox"/> Misread <input type="checkbox"/> Offset <input type="checkbox"/> Out of Calibration <input type="checkbox"/> Out of Sequence <input type="checkbox"/> Outside Dimensions						<input type="checkbox"/> Ovalized <input type="checkbox"/> Over/Under tolerance <input type="checkbox"/> Part Incorrect <input type="checkbox"/> Part Lost/Missing <input type="checkbox"/> Part Moved <input type="checkbox"/> Positioned Wrong <input type="checkbox"/> Power Loss/Surge  <hr/> <hr/> <hr/>		<input type="checkbox"/> Pressure/Forced <input type="checkbox"/> Temperature/Cure <input type="checkbox"/> Weld <input type="checkbox"/> Wrong Stock Pulled  <input type="checkbox"/> Other	

**Work Order ID 106510**

**\*106510\***

Page 2

Thursday, September 05, 2013 8:03:57 AM

Item ID:	D4008-9	Accept	<b>*N900040100*</b>	Setup	Start	<b>*NS1*</b>	
Revision ID:					Stop	<b>*NS2*</b>	
Item Name:	Spring						
Start Date:	9/5/2013	Start Qty: 20.00	<b>*20*</b>	Cust Item ID:			
Required Date:	9/13/2013	Req'd Qty: 20.00	<b>*20*</b>	Customer:			
Reference:							
Approvals:	Process Plan:	Date:	Tooling:	Date:	Run	Start	<b>*NR1*</b>
	QC:	Date:	SPC (Y/N):	Date:	Stop		<b>*NR2*</b>

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
120 <b>*120*</b> QC	QC6- Inspect dimensions to drawing	0.00	<i>QAS</i> <i>21</i> <i>09</i>			<i>20</i>			
Quality Control	Memo	0.00	<i>B9 19</i>						
130 <b>*130*</b> Packaging	Identify as per dwg & Stock Location: <u>GA</u>	0.00							
Packaging	Memo	0.00							
140 <b>*140*</b> QC	QC21- Final Inspection - Work Order Release	0.00							
Quality Control	Memo	0.00							

*PLB 09-18*

*MJ 13-09-18*

*21X 13-09-18*

NCR: Yes / No

DQA: \_\_\_\_\_ Date: \_\_\_\_\_

**WORK ORDER NON-CONFORMANCE / UPDATE**

QA Closed: \_\_\_\_\_ Date: \_\_\_\_\_

Work Order: _____			DISPOSITION			AGAINST DEPARTMENT/PROCESS					
			Rework <input type="checkbox"/>	Skid-tube <input type="checkbox"/>	Crosstube <input type="checkbox"/>	Water Jet <input type="checkbox"/>	Engineering <input type="checkbox"/>				
			Scrap <input type="checkbox"/>	Machining <input type="checkbox"/>	Small Fab <input type="checkbox"/>	Prod. Eng. Coor. <input type="checkbox"/>	Quality <input type="checkbox"/>				
			Use-as-is <input type="checkbox"/>	Thermoforming <input type="checkbox"/>	Finishing <input type="checkbox"/>	Rec/Store/Packaging <input type="checkbox"/>	Other <input type="checkbox"/>				
			Work Order Update <input type="checkbox"/>	Large Fab <input type="checkbox"/>	Composite <input type="checkbox"/>	Supplier <input type="checkbox"/>					
Root Cause	Date	Step	Qty	Description of work order update or Non-conformance	Initial Chief Eng	Action Description	Sign & Date	Verification	QC Inspector		
Doc/Data											
Equip/Tooling											
Operator											
Material											
Setup											
Other											
Process											
Supplier											
Training											
Unapproved											
FAULT CATEGORY											
Landing Gear	General										
	Bending <input type="checkbox"/>	Bend <input type="checkbox"/>	Grain <input type="checkbox"/>	Ovalized <input type="checkbox"/>	Pressure/Forced <input type="checkbox"/>						
	Centre Not Concentric to O/S <input type="checkbox"/>	BOM/Route <input type="checkbox"/>	Hardware <input type="checkbox"/>	Over/Under tolerance <input type="checkbox"/>	Temperature/Cure <input type="checkbox"/>						
	Cracks <input type="checkbox"/>	Broken/Damaged <input type="checkbox"/>	Inspection Incomplete <input type="checkbox"/>	Part Incorrect <input type="checkbox"/>	Weld <input type="checkbox"/>						
	Crushed/Crimped <input type="checkbox"/>	Burrs <input type="checkbox"/>	Instructions Incomplete/Unclear <input type="checkbox"/>	Part Lost/Missing <input type="checkbox"/>	Wrong Stock Pulled <input type="checkbox"/>						
	Cuffs <input type="checkbox"/>	Contamination <input type="checkbox"/>	Maintenance <input type="checkbox"/>	Part Moved <input type="checkbox"/>							
	Heat Treat <input type="checkbox"/>	Countersink <input type="checkbox"/>	Mislabeled <input type="checkbox"/>	Positioned Wrong <input type="checkbox"/>							
	Inspection Strip in Tube <input type="checkbox"/>	Cut Too Short <input type="checkbox"/>	Misread <input type="checkbox"/>	Power Loss/Surge <input type="checkbox"/>	Other <input type="checkbox"/>						
	Ripples in Bend <input type="checkbox"/>	Drill Holes <input type="checkbox"/>	Offset <input type="checkbox"/>								
	Torque Waves in Extrusion <input type="checkbox"/>	Drawing <input type="checkbox"/>	Out of Calibration <input type="checkbox"/>								
	Turning Sequence <input type="checkbox"/>	Finish <input type="checkbox"/>	Out of Sequence <input type="checkbox"/>								
	Wave/Twist in Tube <input type="checkbox"/>	Folio <input type="checkbox"/>	Outside Dimensions <input type="checkbox"/>								

# Picklist Print

Thursday, September 05, 2013 8:03:57 AM

Page 1

Work Order ID: 106510

Parent Item: D4008-9

Parent Item Name: Spring

Start Date: 9/5/2013

Required Date: 9/13/2013

Start Qty: 20.00

Required Qty: 20.00

Comments: IPP rev A 09.12.23 new Issue Prelim EC verified by: DD IPP Rev:B 10.05.03 as per ECN10-  
562 DD verified by:EC IPP REV:C 12.03.07 AS PER DWG REV.C DD VERF:EC

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
206-031-140-001 Splash Guard		Purchased	No			110	Each	0.0000	1	20			

D4008-9P C2

9/13/14 (21)

NCR: Yes / No

DQA: \_\_\_\_\_ Date: \_\_\_\_\_

**WORK ORDER NON-CONFORMANCE / UPDATE**

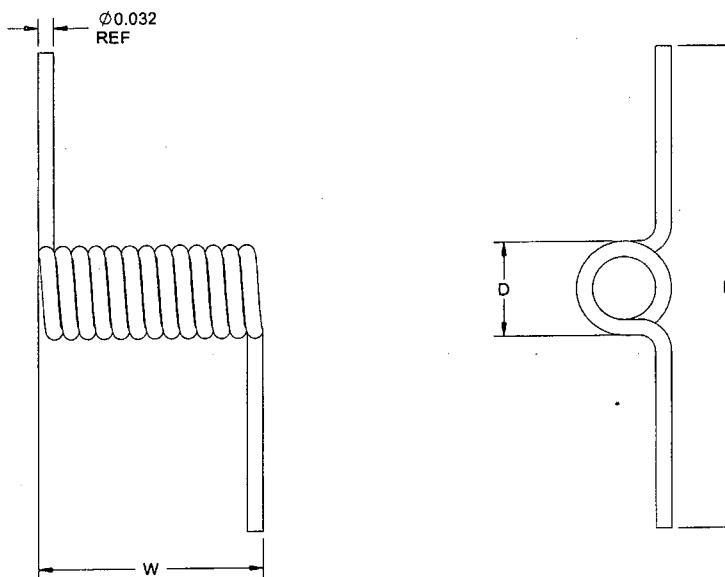
QA Closed: \_\_\_\_\_ Date: \_\_\_\_\_

Work Order: _____			<b>DISPOSITION</b>		<b>AGAINST DEPARTMENT/PROCESS</b>					
			Rework <input type="checkbox"/>	Skid-tube <input type="checkbox"/>	Crosstube <input type="checkbox"/>	Water Jet <input type="checkbox"/>	Engineering <input type="checkbox"/>			
			Scrap <input type="checkbox"/>	Machining <input type="checkbox"/>	Small Fab <input type="checkbox"/>	Prod. Eng. Coor. <input type="checkbox"/>	Quality <input type="checkbox"/>			
			Use-as-is <input type="checkbox"/>	Thermoforming <input type="checkbox"/>	Finishing <input type="checkbox"/>	Rec/Store/Packaging <input type="checkbox"/>	Other <input type="checkbox"/>			
			Work Order Update <input type="checkbox"/>	Large Fab <input type="checkbox"/>	Composite <input type="checkbox"/>	Supplier <input type="checkbox"/>				
<b>Root Cause</b>	Date	Step	Qty	Description of work order update or Non-conformance	Initial Chief Eng	Action Description	Sign & Date	Verification	QC Inspector	
Doc/Data <input type="checkbox"/>										
Equip/Tooling <input type="checkbox"/>										
Operator <input type="checkbox"/>										
Material <input type="checkbox"/>										
Setup <input type="checkbox"/>										
Other <input type="checkbox"/>										
Process <input type="checkbox"/>										
Supplier <input type="checkbox"/>										
Training <input type="checkbox"/>										
Unapproved <input type="checkbox"/>										
<b>FAULT CATEGORY</b>										
<b>Landing Gear</b> <input type="checkbox"/> Bending <input type="checkbox"/> Centre Not Concentric to O/S <input type="checkbox"/> Cracks <input type="checkbox"/> Crushed/Crimped <input type="checkbox"/> Cuffs <input type="checkbox"/> Heat Treat <input type="checkbox"/> Inspection Strip in Tube <input type="checkbox"/> Ripples in Bend <input type="checkbox"/> Torque Waves in Extrusion <input type="checkbox"/> Turning Sequence <input type="checkbox"/> Wave/Twist in Tube				<b>General</b> <input type="checkbox"/> Bend <input type="checkbox"/> BOM/Route <input type="checkbox"/> Broken/Damaged <input type="checkbox"/> Burrs <input type="checkbox"/> Contamination <input type="checkbox"/> Countersink <input type="checkbox"/> Cut Too Short <input type="checkbox"/> Drill Holes <input type="checkbox"/> Drawing <input type="checkbox"/> Finish <input type="checkbox"/> Folio <input type="checkbox"/> Grain <input type="checkbox"/> Hardware <input type="checkbox"/> Inspection Incomplete <input type="checkbox"/> Instructions Incomplete/Unclear <input type="checkbox"/> Maintenance <input type="checkbox"/> Mislabeled <input type="checkbox"/> Misread <input type="checkbox"/> Offset <input type="checkbox"/> Out of Calibration <input type="checkbox"/> Out of Sequence <input type="checkbox"/> Outside Dimensions						
				<input type="checkbox"/> Ovalized <input type="checkbox"/> Over/Under tolerance <input type="checkbox"/> Part Incorrect <input type="checkbox"/> Part Lost/Missing <input type="checkbox"/> Part Moved <input type="checkbox"/> Positioned Wrong <input type="checkbox"/> Power Loss/Surge <input type="checkbox"/> Other						

8  
DART AEROSPACE  
PART NUMBER  
D4008-9

7  
JOHN CAMERON AVIATION  
PART NUMBER  
REF JCA-M47-2-26

## SPECIFICATION CONTROL DRAWING



DART P/N	SUPPLIER	SUPPLIER P/N	WIDTH "W"	HEIGHT "H"	DIAMETER "D"	MATERIAL
D4008-9	VICTORY SPRING	N/A	0.46	0.99	0.19	STAINLESS STEEL SPRING WIRE
D4008-9	BELL HELICOPTER	206-031-140-001	0.46	0.99	0.19	STAINLESS STEEL SPRING WIRE

D4008-X SPRING

NOTES:

- 1) MATERIAL: T301 OR 304 STAINLESS STEEL SPRING WIRE Ø0.032 PER ASTM A313
- 2) FINISH: N/A
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 6) IDENTIFICATION: N/A
- 7) WEIGHT: 0.00 lbs

DESIGN	<i>AB</i>	DART AEROSPACE LTD	
DRAWN	<i>JL</i>	HAWKESBURY, ONTARIO, CANADA	
CHECKED	<i>AB</i>	DRAWING NO.	REV. C
MFG. APPR.	<i>EZ</i>	D4008	SHEET 9 OF 10
APPROVED	<i>AB</i>	TITLE	SCALE
DE APPR.	<i>#</i>	SPLASH GUARD	NTS
DATE	12.01.17	COPYRIGHT © 2010 BY DART AEROSPACE LTD THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD	

RELEASED  
2012-03-07  
*NP*



Dart Aerospace Ltd.  
1270 Aberdeen Street  
Hawkesbury, ON K6A 1K7  
Tel: 613 632 9577  
Fax: 613 632 1053

## PURCHASE ORDER

Purchase Order ID **PO21228**

Purchase Order Date 9/6/2013

PO Print Date 9/6/2013

Page Number 1 of 1

Order From : VC-VIC002  
VICTORY SPRING LTD.  
#2 6104 - 82 AVE.  
EDMONTON, AB T6B 0E7  
CA

Ship To : DART AEROSPACE LTD  
1270 ABERDEEN  
HAWKESBURY, ON K6A 1K7  
CANADA

RECEIVED  
9/30/10

Contact Name	Buyer	Chantal Lavoie
Vendor Phone	Customer POID	
	Customer Tax #	10127-2607
Ship To Contact	Terms	Net 30
Ship To Phone	Currency	CAD
Ship Via:	FOB	Destination-Collect
Ship Acct:		

Line Nbr	Reference Vendor Part Number	Description/ Mfg ID	Req Date/ Taxable	CD	Req Qty/ Unit of Measure	PO Unit Price	Extended Price
1	D4008-9P	Spring	9/13/2013	Yes	20.00 Each	\$7.44	\$148.80
			9/13/2013				

AS PER DWG D4008 REV.C  
B106510

*See 21*

Line Total: \$148.80

PO Total: \$148.80

Note: Pricing listed above is as per contract agreement between Dart Aerospace and the respective manufacturer.  
No substitution or deviation without consent.  
Certificate of Conformity or Material Certification required -  YES  NO  
PST# 6122-5207

Change Nbr: 1 Change Date: 9/6/2013



convenient. consistent. correct.

## PACKING SLIP

27963

#2, 6104 - 82 Ave  
Edmonton, AB T6B 0E7  
t + 780 442 4020  
f + 780 466 8000

BILL TO:  
Dart Aerospace Ltd  
1270 Aberdeen Street  
Hawkesbury, ON K6A, 1K7

SHIP TO:

SHIP VIA

FedEx P1 Collect

DATE	ORDER No.	SHIP VIA	
16-Sep-13	PO21228	FedEx P1 Collect	
QUANTITY	DESCRIPTION	UNIT	AMOUNT
AS 21	D4008-9P Torsion Spring		
GST #	TERMS	SUBTOTAL	FREIGHT
854454527	NET 30 DAYS		
		GST	TOTAL



convenient. consistent. correct.

# 2, 6104 - 82 Ave  
Edmonton, AB T6B 0E7  
t + 780 442 4020  
f + 780 466 8000

## CERTIFICATE OF CONFORMANCE

REPORT FOR : Dart Aerospace Ltd	DATE: 9/16/2013
PART/DRAWING #: D4008-9P	PO # PO21228
DESCR: Torsion Spring	QUANTITY: 21

CHARACTERISTIC	SPECIFIED	MEASURED	NOTES
Material type	SS 302	Yes	
Material diameter	0.035	0.035	
Coil I.D.			
Coil O.D.	0.19	0.196	
Width	0.46	0.46	
Free Length	0.99	0.99 - 1.030	
Helix	RHW	RHW	
End Type			

COMMENTS

AS  
21  
88

Mill Certificate attached: no

Material Heat Number: no

Inspected by: